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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,307	09/05/2003	Shin-Sang Lee	SEC.1074	7429
20987	7590	01/31/2006	EXAMINER	
VOLENTINE FRANCOS, & WHITT PLLC ONE FREEDOM SQUARE 11951 FREEDOM DRIVE SUITE 1260 RESTON, VA 20190			DHINGRA, RAKESH KUMAR	
			ART UNIT	PAPER NUMBER
			1763	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)	
	10/655,307	LEE, SHIN-SANG	
	Examiner	Art Unit	
	Rakesh K. Dhingra	1763	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 13 January 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 2 (see other).  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☒ Other: please see continuation sheet.

  
Rakesh K Dhingra

## Response to Arguments

Applicant has cancelled claims 1, 3-7 and amended claim 2 by adding to it the limitation of claim 3 viz" wherein the window \_\_\_\_\_ located no deeper in the window than the inner end of protrusion".

Applicant contends that claim 2 differentiates the protrusion 26 of the invention from the end-point detection windows of prior art even as viewed in combination. Applicant further argues that Suk et al discloses an end point detection window 22 that is not solid nor is the recess a flute that is located no deeper in the window than the inner end of the protrusion 22 and thus even in combination with prior art it would lack a detection window having a protrusion whose form and function correspond to those of claim 2.

Examiner responds that window 20 in Suk et al has an outwardly extending solid (protrusion is integral with the remainder of window) protrusion with an inner end and an outer end solid protrusion and also has a flute (groove). Regarding depth of flute, Examiner responds that this may be optimized based on process considerations since the disclosure (Specification, paragraph 0100) does not give any specific advantage for the criticality of the flute being located no deeper in the window than the inner end of protrusion 22.

Applicant further argues that Kim et al teach a heater and a window of same type as disclosed by Suk et al and as such the protrusion in the window is not provided for the purpose of concentrating heat at the recess. Applicant also contends that even in combination with admitted prior art and Suk et al the window would still have a hollow protrusion different from the protrusion and flute recited in the claim 2. Examiner responds that reference by Kim et al was used since it teaches a heater 30 around a process chamber window 12 that has a protrusion. Examiner further responds that requirement of flute being located no deeper in the window than the inner end of protrusion 22 being related to "concentrating heat at the recess" is not disclosed as explained above and is therefore only an intended use.


Applicant also argues that Grimbergen et al teach a window 130 that has a plug protrusion 136 (like a solid portion) that extends inwardly (towards interior of chamber) from disc 133 which is in contrast to applicant's claimed invention and further the protrusion 136 (Grimbergen et al) extends inwardly so as to define a recess 134 that acts to limit access by active species of the process in the chamber.

In response to applicant's argument that there is no suggestion to combine teachings of admitted prior art and Suk et al and Kim et al with Grimbergen et al since the combination of admitted prior art, Suk et al and Kim et al already has a recess, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Examiner responds that reference by Grimbergen et al was brought in as it teaches limitations of earlier claim 3 (now cancelled and combined with amended claim 2) viz. use of a window having solid protrusion 136 and with flute 145 (Figures 2A, 5A) whose dimensions and shape could be optimized based on process considerations. Applicant's argument regarding protrusion 136 (Grimbergen et al) extending inwards towards interior of chamber is found persuasive to that extent.

Applicant finally contends that because of differences between applicant's claimed invention and the references, including lack of suggestion in the references of a system for detecting change in process occurring in a processing chamber comprising a window that has an outwardly extending solid protrusion in combination with a heater to concentrate heat at a flute in the window, the subject matter of claims is not rendered obvious and thus claim should be allowed.

Examiner responds that admitted prior art in view of Suk et al, Kim et al and Grimbergen et al teach all limitations of the claim 2 except "heater to concentrate heat at a flute in the window" which is only an intended use and is whose relationship to the flute depth is not disclosed in the specification. Claim 2 thus continues to stand rejected.

Rakesh Dhingra

  
Parviz Hassanzadeh  
Supervisory Patent Examiner  
Art Unit 1763